

IN THE CLAIMS:

*Sub B*  
of:

1. A peptide having an amino acid sequence selected from the group consisting

(a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)  
(b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)  
(c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)  
(d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)  
(e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)  
(f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)  
(g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)  
(h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)  
(i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)  
(j) A R L;  
(k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)  
(l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)  
(m) A R C L; (SEQ ID NO: 12)  
(n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)  
(o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)  
(p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)  
(q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)  
(r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)  
(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

*Q4*  
thereof.

3. A peptide having an amino acid sequence selected from the group consisting  
of: (SEQ ID NOS 4-11, respectively in order of appearance)

(a) L H A R L C L A N F C G R N R V;  
(b) L A R L C L A N F C G N N N V;  
(c) C A R Y R T G H H A R L M;  
(d) H H A R L P L A N F C G;  
(e) R T G H H A R L C\*L A N F C;

*Q7*

*a7*  
cont

- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

5. A peptide having the amino acid sequence A R L I (portion of SEQ ID NO: 2, residues 47-50), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

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*bulb 2*  
6. A peptide having the amino acid sequence H A R L (portion of SEQ ID NO: 2, residues 292-295), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

7. A peptide having the amino acid sequence F A R L (portion of SEQ ID NO: 2, residues 264-267), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

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9. A peptide having the amino acid sequence A R L C (portion of SEQ ID NO: 2, residues 92-95), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

11. A nucleic acid encoding an amino acid sequence selected from the group consisting of:

*a10*

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)

*a 10*  
*Cont*

(n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)  
(o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)  
(p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)  
(q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)  
(r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)  
(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.

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13. A nucleic acid encoding an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

*a 11*

(a) L H A R L C L A N F C G R N R V;  
(b) L A R L C L A N F C G N N N V;  
(c) C A R Y R T G H H A R L M;  
(d) H H A R L P L A N F C G;  
(e) R T G H H A R L C \* L A N F C;  
(f) C E S A R Y R T G H H A R L C \*;  
(g) D N T H H A R L I L;  
(h) S H H A R L I L; and homologs thereof.

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20. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

*a 12*

(a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)  
(b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)  
(c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)  
(d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)  
(e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)  
(f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)  
(g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)  
(h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)  
(i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)  
(j) A R L;  
(k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)  
(l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)  
(m) A R C L; (SEQ ID NO: 12)

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

thereof.

21. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C\*L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

*a 12*  
*Cont*  
22. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L; and
- (e) A R L C, (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

*Sub 13*  
*Exhibit 3*  
23. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295) (b) H A R
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

*Sub B3*

- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

24. A mimetic of a peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

*Sub A12*

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

*Cont*

25. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and

(e) A R L C; (SEQ ID NO: 12)

wherein the NTP peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

26. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) isolating the resulting Harlil peptide/NTP conjugates; and
- (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.

27. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11,

respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;

(b) L A R L C L A N F C G N N N V;  
(c) C A R Y R T G H H A R L M;  
(d) H H A R L P L A N F C G;  
(e) R T G H H A R L C \* L A N F C;  
(f) C E S A R Y R T G H H A R L C \*;  
(g) D N T H H A R L I L;  
(h) S H H A R L I L; and homologs thereof;

(2) isolating the resulting Harlil peptide/NTP conjugates; and  
(3) separating NTP from the one or more Harlil peptides to obtain purified NTP.

28. A method for purifying NTP from a biological sample comprising:  
(a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:  
(i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)  
(ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)  
(iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)  
(iv) A R L; and  
(v) A R L C; (SEQ ID NO: 12)  
wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;  
(b) isolating the resulting Harlil peptide/NTP conjugates; and  
(c) separating NTP from the one or more Harlil peptides to obtain purified NTP.

29. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:  
(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:  
(a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)  
(b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)  
(c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)  
(d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)  
(e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)  
(f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)  
(g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)  
(h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)  
(i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)

- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

30. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) L H A R L C L A N F C G R N R V;
  - (b) L A R L C L A N F C G N N N V;
  - (c) C A R Y R T G H H A R L M;
  - (d) H H A R L P L A N F C G;
  - (e) R T G H H A R L C\*L A N F C;
  - (f) C E S A R Y R T G H H A R L C \*;
  - (g) D N T H H A R L I L;
  - (h) S H H A R L I L; and homologs thereof;
- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

31. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (iv) A R L; and
  - (v) A R L C; (SEQ ID NO: 12)wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;
- (b) determining the amount of NTP present in the sample; and
- (c) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

32. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) one or more peptides having an amino acid sequence selected from the group consisting of:
  - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
  - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
  - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
  - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
  - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (j) A R L;
  - (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
  - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12) (n) M F A R L I L; (portion of

SEQ ID NO: 2, residues 263-269)

(o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)

(p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)

- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences; and

(2) suitable reagents.

33. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) L H A R L C L A N F C G R N R V;
  - (b) L A R L C L A N F C G N N N V;
  - (c) C A R Y R T G H H A R L M;
  - (d) H H A R L P L A N F C G;
  - (e) R T G H H A R L C\*L A N F C;
  - (f) C E S A R Y R T G H H A R L C \*;
  - (g) D N T H H A R L I L;
  - (h) S H H A R L I L; and homologs thereof; and
- (2) suitable reagents.

*a 12*  
*Cont*  
34. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (a) one or more peptides having an amino acid sequence selected from the group consisting of:
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (iv) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (v) A R L C; (SEQ ID NO: 12)wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide; and
- (b) suitable reagents.

35. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

*a 12  
Cont'*

36. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C\*L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;

- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

37. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

38. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)

a 12  
Cont'

(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.

39. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C\*L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

40. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

*a 12  
cont*

41. A method of isolating immunoglobulins from a sample using a peptide comprising:

- (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and
- (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

(e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)  
(f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)  
(g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)  
(h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)  
(i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)  
(j) A R L;  
(k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)  
(l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)  
(m) A R C L; (SEQ ID NO: 12)  
(n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)  
(o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)  
(p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)  
(q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)  
(r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)  
(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

*a 12*  
45. A method of isolating immunoglobulins from a sample using a peptide comprising:  
(1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/peptide interaction; and  
(2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:  
(SEQ ID NOS 4-11, respectively, in order of appearance)  
*a 13*  
(a) L H A R L C L A N F C G R N R V;  
(b) L A R L C L A N F C G N N N V;  
(c) C A R Y R T G H H A R L M;  
(d) H H A R L P L A N F C G;  
(e) R T G H H A R L C\*L A N F C;  
(f) C E S A R Y R T G H H A R L C \*;  
(g) D N T H H A R L I L;  
(h) S H H A R L I L; and homologs thereof.